

ABSTRACT OF THE DISCLOSURE

A carrier including a magnetic core material and a layer located on a surface of the magnetic core material, wherein the carrier satisfies the following relationships (1) to (3): $0.90 \leq (\sigma_a/\sigma_b) < 1.00$ (1); $200 \leq (\sigma_b \cdot \rho_c) \leq 400$ (2); $10 \leq (\sigma_b/\rho_c) \leq 20$ (3), wherein σ_b represents a magnetization of the carrier at 1,000 Oe, σ_a represents a magnetization of the carrier after frictionized with a cylindrical sleeve under a specific condition and ρ_c represents a true specific gravity of the carrier, wherein the carrier has a weight-average particle diameter of about 25 to about 65 μm and includes carrier particles having a weight-average particle diameter not greater than about 12 μm in an amount of not greater than about 0.3 % by weight, wherein a ratio between the weight-average particle diameter and a number-average particle diameter of the carrier is about 1 to about 1.3, and wherein an electric resistance is from about 1.0×10^9 to about $1.0 \times 10^{11} \Omega \cdot \text{cm}$ when an AC voltage represented by the following formula (4) is applied at a frequency of 1,000 Hz to a magnetic brush of the carrier is formed between parallel plate electrodes having a gap of d mm such that magnetic brush has a space occupancy of 40 %: $E(V) = 250 \times d$ (4), wherein d is 0.40 ± 0.05 mm and E is a peak voltage.

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